CLAIMS

What is claimed is:

1.   A method of providing for a call waiting notification to a participant in an existing telephone call, comprising the steps of:

establishing a telephone call with a calling party;

receiving from said calling party a specified telephone number of the participant in the existing telephone call;

causing a distinctive call waiting tone to be sent to said participant wherein said distinctive call waiting tone is specified with said calling party; and

responsive to the participant electing to speak with said calling party, transferring said established call to the participant.

2.   The method of claim 1, further comprising the step of receiving from said calling party call information, and sending a distinctive call waiting tone to said participant based upon said call information.

3.   The method of claim 2, wherein said call information identifies said call as out-of-area code with respect to said participant.

4.   The method of claim 2, wherein said call information comprises password information, and further comprising the step of verifying said password information.

5.   The method of claim 1, further comprising the step of receiving subscriptions to said call waiting service provider, and verifying said call waiting subscription when said call is received by said call waiting service provider.

6.   The method of claim 1, further comprising the step of providing a list to said caller of available call waiting messages, receiving from said caller a selection of a

3   message, and sending a distinctive call waiting tone to said participant according to

4   said selection.

1   7.   A system for providing for a caller a call waiting notification to a participant in an

2   existing telephone call, comprising:

3   a call waiting service provider configured to receive a call from a calling party to

4   identify in said received call a telephone number associated with said participant;

5   a distinctive call waiting tone generator configured to generate distinctive call

6   waiting tones based upon characteristics of said calling party; and,

7   a switch for transferring said received call to the participant if the participant

8   elects to accept the received call.

1   8.   The system of claim 7, wherein said call waiting service provider further

2   comprises a database comprising authorized passwords, and a data processing system

3   for verifying a password received from said caller by comparing said password to said

4   database of passwords.

1   9.   The system of claim 7, further comprising a table of available call waiting

2   messages, and a data processing system for receiving from said caller a selection of a

3   message, and for assigning a call waiting tone according to said selection.

1   10.   The system of claim 7, further comprising a data processing system for receiving

2   call information from said caller, and for sending a distinctive call waiting tone to said

3   participant according to said call information.

1   11.   The system of claim 10, wherein said call information identifies said caller as

2   being out-of-area code with respect to said participant, and said system sends a

3   distinctive call waiting tone to indicate to said participant that said call is out-of-area

4   code.

1　　12.　　The system of claim 10, wherein said call information comprises at least one
2　　selected form the group consisting of out-of-area code, password, time of day at point
3　　of origin, geographical location, and time zone information.

1　　13.　　The system of claim 7, wherein said system comprises a database comprising
2　　subscription information, and a data processing system for comparing said telephone
3　　number received from said caller to said subscription information in said database.

1　　14.　　A system for providing a call waiting notification to participants in corresponding
2　　telephone calls, comprising:
3　　　　　　fixed data storage for storing a list of call characteristics;
4　　　　　　a computer for matching said call characteristics with entries in said list;
5　　　　　　a call analyzer for detecting characteristics in received calls;
6　　　　　　a call waiting tone generator for producing distinctive call waiting tones according
7　　to said entries in said list which match said detected call characteristics; and,
8　　　　　　a tone transmitter for sending said distinctive call waiting tones to said
9　　participants.

1　　15.　　The system of claim 14, wherein said call characteristics are at least one
2　　selected form the group consisting of out-of-area code, password, time of day at point
3　　of origin, geographical location, and time zone characteristics.

1　　16.　　The system of claim 14, further comprising structure for selecting said call
2　　characteristics from a menu of available call characteristics.

1　　17.　　The system of claim 16, wherein said selection is made through a telephone
2　　connection.

1   18.   The system of claim 16, wherein said selection is made through an Internet
2   connection.

1   19.   The system of claim 14, further comprising password verification structure.

1   20.   A method for providing a call waiting notification to a participant in a telephone
2   call, comprising the steps of:
3   storing a list of call characteristics;
4   detecting call characteristics;
5   comparing said call characteristics to said list of call characteristics to determine
6   if there is a match;
7   generating a call waiting tone according to the call characteristics of said match;
8   and
9   sending said call waiting tone to said participant.

1   21.   The method of claim 20, wherein said call characteristics are at least one
2   selected form the group consisting of out-of-area code, password, time of day at point
3   of origin, geographical location, and time zone characteristics.

1   22.   The method of claim 20, further comprising the step of creating said list of call
2   characteristics.

1   23.   The method of claim 22, wherein said step of creating said list of call
2   characteristics comprises the step of selecting call characteristics from a menu of
3   available call characteristics.

1   24.   The method of claim 23, wherein said selection is made through a telephone
2   connection.

1   25.   The method of claim 23, wherein said selection is made through an Internet

2   connection.